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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/780,927  
Filing Date: February 17, 2004  
Appellant(s): HIRST, B. MARK

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Todd A. Rathe  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 2 June 2008 appealing from the Office action mailed 31 December 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,923,152	Guerrera, Nunzio	07-1999
6,055,161	Church et al.	04-2000

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5,485,365

Dan-Harry, Dawari D.

01-1996

For the above reasons, it is believed that the rejections should be sustained.

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

### **Claim Rejections - 35 USC § 102**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21 (2) of such treaty in the English language.

(e) The invention was described in a patent granted on an application<sup>7</sup> for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 7 and 52 are rejected under 35 U.S.C. 102(b) as being anticipated by Guerrero (U.S. Patent # 5,923,152).

Guerrero disclose the claimed subject matters an AC switching circuit (figure 1, 2, 5 and 7), including a control circuit (figure 2, item 70 and 74), a biasing circuit (figure 2, item 50 and 52) and charging storage capacitor (column 3, line 20-65).

3. Claims 31, 34, 35, 37-38 and 43-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Church et al. (U.S. Patent # 6,055,161).

Church et al. discloses claimed subject matters a snubber circuit (figure 1-7 and 11), including a first energy storage device (figure 2, item 102), a second energy storage device (figure 2, item 104) and a resetting (column 7, line 50-70), a bias source (column 3, line 1-65), a plurality of diode (figure 2, item 106,108), an inductor (figure 2, item 110).

**Claim Rejections - 35 USC § 103**

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action: a)

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8-9, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guerrero (U.S. Patent # 5,923,152).

Guerrero disclose the claimed subject matters as explained in the claim 1 and 7 above, except for a first Field Effect Transistor (FET) having a first source, a first gate and a first drain; a second FET having a second drain, a second source coupled to the first source and a second gate coupled to the first gate; a first diode having a first anode coupled to the first source and a first cathode coupled to the first drain; and a second diode having a second anode coupled to the second source and a second cathode coupled to the second drain. 9.

(Currently Amended) The apparatus of claim 16 wherein the AC switching circuit comprises: a first Field Effect Transistor (FET) having a first source, a first gate and a first drain; a second FET having a second drain, a second source coupled to the first source and a second gate coupled to the first gate; a first diode having a first cathode coupled to the first source and a first anode coupled to the first drain; and a second diode having a second cathode coupled to the second

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source and a second anode coupled to the second drain. It would have been obvious one having ordinary skill in the art at the time the invention made to utilize above circuit configuration, since it has been held that a mere reversal of the essential working parts of a device involve only routine skill in the art. In re Einstein, 8 USPQ 167.

6. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guerrero (U.S. Patent # 5,923,152).

Guerrero disclose the claimed subject matters as explained in the claims 1 and 7, above, except the, load comprises an inductive heating device or a single phase induction motor or the load comprises a fuser. It would have been obvious one having ordinary skill in the art at the time the invention was utilize the switching circuit for telephonic equipment, since it has been held to be within the general skill of a worker in the art to select a known load on the basis of the suitability for intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

7. Claims 32-33 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Church et al. (U.S. Patent # 5,923,152).

Guerrero disclose the claimed subject matters as explained in the claims 1 and 7, above, except a DC switching, an AC switching, a fan. It would have been obvious one having ordinary skill in the art at the time the invention was utilize the switching circuit for telephonic equipment, since it has been held to be within

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the general skill of a worker in the art to select a known load on the basis of the suitability for intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

8. Claims 47-51 and 53-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guerrero (U.S. Patent # 5,923,152) in combinations with Dan-Harry (U.S. Patent # 5,485,365).

Guerrero discloses claimed subject matters as explained in the claims 1, 7 and 52 above, except the utilization of the technique for current limiting device. Dan -Harry teaches the utilization of the similar technique for current limiting device (figure 2). It would have been obvious one having an ordinary skill in the art at the time the invention was made to modify Guerrero's snubber circuit by utilizing the technique taught by Dan- Harry for the purpose of the providing improved snubber circuit.

9. For method claims 39-42, note that under MPEP 21 12.02, the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device "1 inherently performs the claimed process. In re King, 801 F.2d 1324, 231 USPQ 136 (Fed Cir. 1986). Therefore the previous rejections based on the apparatus will not be repeated.

**Allowable Subject Matter**

10. Claims 10-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**(10) Response to Argument**

Appellant's arguments filed on 6/2/2008 have been fully considered but they are not persuasive. Specifically, the appellant argues the following

A) Appellant's arguments with respect to claim 1, rejection under 102(b) is improper, also Guerrero fails to disclose a biasing snubber circuit coupled to an AC switching circuit and the control circuit to capture energy from a switching circuit and provide at least a portion of the captured energy to bias the control circuit. The examiner respectfully disagrees. When examining a claim, the examiner is required to give the claim its broadest reasonable interpretation. Specifically, during patent examination, the claims are given the broadest reasonable interpretation consistent with the specification, see MPEP2111. Guerrero clearly disclosed a biasing snubber circuit coupled to an AC switching and control circuit as well as AC input (figure 2, item 40, 50, 70 and column 2, line 30-40). Further regarding the energy captured by biasing capacitor used for reducing losses (column 4, line 5-20). In regards to claim 7, a charge storage circuit for first and second phase (figure 2, item 50 and 52). Further in regards to claim 52, the switching circuit includes a first and second transistor (figure 2, item



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40 and 46). In regards to claim 31, Appellant argues that applied art fails to disclose first energy storage device and second energy storage device Examiner respectfully disagrees. the applied art of Church et al.'s figure 2 clearly disclose the first storage device item 102 and second storage device item 104. Further in regards to transferring energy examiner like to point out to column 7-8 of applied art of Church et al. line 50-70 and 1-5 respectively discloses transferring energy for controlling switch (item 114 column 8, line 1-5). In regards to other dependent claims 34,35, 37-38and 43-45 as explained in the office action claimed components such as diodes, inductor, bias source and their function are also disclosed by applied arts of Guerrera's and Church et al.

In short applicant invention is nothing but utilizes biasing circuit to reducing switching losses and applied art work on same principal of storage of captured energy and utilizes that energy to reducing switching losses.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

/RAJNIKANT B. PATEL/

Primary Examiner, Art Unit 2838

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